

IN THE CLAIMS:

1. (currently amended) A bone anchoring device comprising:

a bone anchoring element provided with a head for receiving a threaded shaft upon which a clamping means is screwed;

a spherical articulation provided between the bone anchoring element and the threaded shaft in order to allow multiple orientation of the threaded shaft; and

rotational linkage means between the bone anchoring element and the threaded shaft permitting spherical articulation between the bone anchoring element and the threaded shaft, ~~leading, when a rotational force is exerted axially along the bone anchoring element or the threaded shaft, to a rotational~~ and capable of rotationally locking between the bone anchoring element and the threaded shaft, regardless of the multiple orientation for the threaded shaft relative to the bone anchoring element,

wherein the rotational linkage means comprises a female geometrical form cooperating with a complementary male geometrical form, delimiting therebetween a clearance in order to allow multiple orientation between the threaded shaft and the bone anchoring element, the female and male geometrical forms having non-circular transverse cross-sections.

2. (original) The bone anchoring device according to claim 1, wherein the rotation linkage means are provided outside the spherical articulation.

Claim 3 (canceled).

4. (previously presented) The bone anchoring device according to claim 1, wherein one of the geometrical forms is provided on the head of the bone anchoring element, and wherein the other geometrical form is provided on the end of the threaded shaft.

5. (previously presented) The bone anchoring device according to claim 1 wherein one of the geometrical shapes is provided on an end face of the bone anchoring element, extending within an open housing provided in the head and receiving the end of the threaded shaft made as a ball-and-socket joint in order to form the spherical articulation, said ball-and-socket joint being provided with the other geometrical form on its transverse face.

6. (original) The bone anchoring device according to claim 5, wherein the transverse face of the ball-and-socket joint and the end face of the bone anchoring element extend a distance from one another in order to allow multiple orientation of the threaded shaft.

7. (original) The bone anchoring device according to claim 6, wherein at least one of the transverse face of the ball-and-socket joint and the end face of the bone anchoring element has a convex shape.

8. (original) The bone anchoring device according to claim 5, wherein the male geometrical form is made on the end of the bone anchoring element, and wherein the female geometrical form is provided on the ball-and-socket joint.

9. (original) The bone anchoring device according to claim 1, wherein the receiving head forms a grip nut for a screwing tool.